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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,182	03/15/2004	Peter Aschenbrenner	10031.000600 (S0034)	2243

31894 7590 05/15/2007
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EXAMINER

FICK, ANTHONY D

ART UNIT	PAPER NUMBER
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1753

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/801,182

Applicant(s)

ASCHENBRENNER, PETER

Examiner

Anthony Fick

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/2/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. Applicant's amendments to the specification have overcome the previous objections. The objections are withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 5, 10 through 13 and 15 through 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rawlings (U.S. 5,338,369).

Rawlings discloses roof integratable photovoltaic modules as shown in figures 1 and 2.

Regarding claim 1, figure 2 shows a frame for holding a photovoltaic module, a set of frame members, 14 and 23, each member comprising a plurality of air vents within a perimeter of the frame member, vents 12, and having a mounting portion configured to allow for attachment to a roof, portion 16 or portion 21.

Regarding claim 4, the frame in figure 2 has a mounting portion including an outer lip facing an exterior of the frame and having a provision for roof attachment, edges 16 and 21.

Regarding claim 5, Rawlings discloses multiple modules, see figure 3, each having the plurality of air vents within the frame as the first module shown in figure 2.

Rawlings also discloses that multiple rows of modules can be placed on a roof adjoining vertically (column 7, paragraph 3) thus having two modules in line such that air flows from under the first to under the second through the air vents.

Regarding claim 10, Rawlings discloses the frame can be extruded (column 4, paragraph 12).

Regarding claim 11, Rawlings discloses the use of typical photovoltaic elements (column 6, paragraph 5). These cells have an electrode on the backside of the cell and thus have a backside contact.

Regarding claim 12, figure 2 shows a frame for holding a photovoltaic module, the frame comprising a plurality of air vents within a perimeter of the frame, vents 12 which extend throughout the frame, and having a mounting portion configured to allow for attachment to a roof on all sides, portion 27, portion 16 or portion 21 and portion 18.

Regarding claim 13, the frame in figure 2 has a mounting portion including an outer lip facing an exterior of the frame and having a provision for roof attachment, 27 with holes 17 for roof attachment and attachment to another frame.

Regarding claim 15, Rawlings discloses the frame can be extruded from one or several pieces (column 4, paragraph 12).

Regarding claim 16, Rawlings discloses the modules can be attached into roof sheathing and/or roof framing members (column 5, paragraph 3). The roof sheathing reads on a substructure that is attached to the roof.

Regarding claim 17, Rawlings discloses the use of typical photovoltaic elements (column 6, paragraph 5). These cells have an electrode on the backside of the cell and thus have a backside contact.

Regarding claim 18, Rawlings also discloses a method of installing photovoltaic modules on a roof. Figure 2 shows a frame for holding a first photovoltaic module, the frame comprising a plurality of air vents within a perimeter of the frame member, vents 12 which extend throughout the frame, and having a mounting portion configured to allow for attachment to a roof, portion 27 or portion 21. Rawlings discloses multiple modules, see figure 3, each having the plurality of air vents within the frame as the first module shown in figure 2. Rawlings also discloses that multiple rows of modules can be placed on a roof adjoining vertically (column 7, paragraph 3) thus having two modules in line such that air flows from under the first to under the second through the air vents.

Regarding claim 19, figures 3, 3B and 4 show the mounting hardware utilized by Rawlings that attaches outer lips of the frame members together using a clip clamping the outer lips.

Regarding claim 20, Rawlings discloses the frame can be extruded and formed from a lightweight metal such as aluminum (column 4, paragraph 12).

The above rejections are based on the examiner's interpretation of claims 1 and 12. Specifically for claim 1, it is the position of the examiner that a first set of frame members does not require the set to include each and every portion of the frame, just a multiple number of members that make up the frame. In the reference to Rawlings, the

front side and backside frame members make up this set, with each having a plurality of air vents. For claim 12, it is the position of the examiner that the applicant's amendment to the claim requires the frame to allow attachment to a roof on all sides of the frame, but does not require a plurality of air vents on all sides of the frame. It is suggested that applicant amend the claim to read "... a plurality of air vents within a perimeter of the frame on all sides of the frame and having ..." if applicant wants the frame to have air vents on all sides.

Response to Arguments

4. Applicant's arguments, see pages 9-12 of remarks, filed February 26, 2007, with respect to the reference to Uchihashi et al. have been fully considered and are persuasive. The rejections based on the Uchihashi reference have been withdrawn.

5. Applicant's arguments filed February 26, 2007 with respect to the Rawlings reference have been fully considered but they are not persuasive. Applicant argues that claim 1 requires each member of the set of frame members to have a plurality of air vents and mounting portions and the reference to Rawlings does not disclose this. The examiner respectfully disagrees. As stated above, it is the position of the examiner that a first set of frame members does not require the set to include each and every portion of the frame, just a multiple number of members that make up the frame. The reference to Rawlings shows frame member 14 having a plurality of air vents and edges 21 and 16 that can be mounted to a roof. Rawlings further discloses that air entering the vents shown in the figure flows uninterrupted until it exits the top of the module (column 5, paragraph 1). Therefore, frame member 23 has to have the same plurality of air vents

as 14, otherwise the air flow would be interrupted and the air could not exit the top of the module. These arguments also apply to applicant's arguments against claims 4 and 5, as member 23 has air vents and thus the vertical installation of two modules provides air flow through the frame members of the first module and into the second module through the vents of the second module.

Applicant further argues in reference to claim 12 that the reference to Rawlings does not have a plurality of air vents on all sides of the frame. As stated above, it is the position of the examiner that the applicant's amendment to the claim requires the frame to allow attachment to a roof on all sides of the frame, but does not require a plurality of air vents on all sides of the frame. Since the device of Rawlings can be attached on all sides, the device still meets this interpretation of the claim.

Applicant again argues in reference to claim 18 that the device of Rawlings does not have air flowing through multiple members and therefore multiple modules can not meet the requirements of the claim. The examiner respectfully disagrees. The reference to Rawlings shows frame member 14 having a plurality of air vents and edges 21 and 16 that can be mounted to a roof. Rawlings further discloses that air entering the vents shown in the figure flows uninterrupted until it exits the top of the module (column 5, paragraph 1). Therefore, frame member 23 has to have the same plurality of air vents as 14, otherwise the air flow would be interrupted and the air could not exit the top of the module. Thus the vertical installation of two modules provides air flow through the frame members of the first module and into the second module through the vents of the second module.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday - Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Fick *ADF*
AU 1753
May 11, 2007


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